



## FUNDAMENTALS OF GEOMETRICAL DIMENSIONING AND TOLERANCING COURSE

This fully interactive course is based on International Standards Organization (ISO) standards and will give you a fundamental knowledge of ISO 1101 and related standards and their application on drawings. Understanding dimensioning and tolerancing on engineering drawings is critical to being able to make parts that satisfy their functional requirements.

### Course Objectives

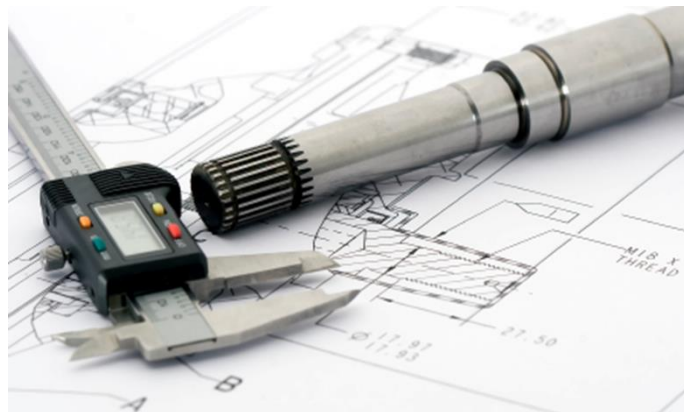
The course will provide you with the knowledge and skills to:

- recognise the ISO1101 drawing practices and benefits of geometrical tolerancing
- understand key geometrical tolerancing concepts
- interpret datum reference frame and select datum features
- know GD&T symbols and how to apply them to drawings

### Course Outline

The topics covered include:

- ISO drawing conventions
- GPS basics
- size and boundary conditions
- the datum system
- form tolerances
- orientation and location tolerances
- run-out and profile tolerances



### Pre-course requirements

Participants must have a basic understanding of AS1100.101 – 1992 which sets out basic principles of technical drawing practice.

### Past attendees have said...

*"This course will enable us to take a new look at our vehicle designs and make modifications that will give a good chance of reputable product being manufactured"*

*"This course will allow better communication between our design engineers, manufacturing & quality inspectors"*

## Course Details

### Venue

Training may be carried out online or at an NMI office. Try the [free GD&T Skills Assessment](#). This will challenge your GD&T knowledge so you can understand what level of GD&T training you need.

### Fee / Inclusions

Check the NMI [website](#) for the current price which includes lunch, refreshments and copies of:

- ISO Geometrical tolerancing reference guide, by Alex Krulikowski
- ISO Geometrical tolerancing pocket book

### Time

Face-to-face course will start at 9 am and will finish by 5 pm.

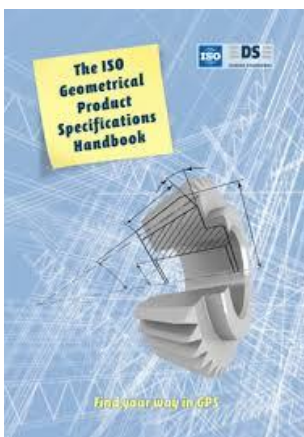
Online course delivered over 2 days, 2 sessions / day: 9 am – 12:30 pm and 1 pm – 4:30 pm.

## Related Courses

Course name	Duration	Dates
Fundamentals of GD&T based on ASME Y14.5-2018	2 or 3 days	On request
Fundamentals of GD&T based on ASME Y14.5-2009	2 or 3 days	On request
Advanced concepts of GD&T based on ASME Y14.5M-1994	2 or 3 days	On request

## Geometrical Product Specification (GPS)

A universal approach to the production process will be achieved if everyone in the process communicates adequately. The primary means of communication is the engineering drawing and it is important that all key players in the process are involved right from the start of the design.



A product must meet design requirements, product specifications and standards.

It must then be manufactured by the most environmentally friendly and economical methods.

Quality must be built in at every stage from design through to assembly, instead of only testing upon completion.

To be competitive, production methods must be flexible so that responses can be made to market demand, product types, quantity and rate of production requirements.

New developments in materials, production methods and computer aided manufacture must be evaluated and implemented as deemed appropriate.

By providing uniformity in drawing specifications and interpretation, GPS reduces guesswork throughout the manufacturing process improving quality, lowering costs, and shortening deliveries. It guides the user as to which ISO standards should be referenced on a drawing and what the standards cover.

### Contact us

Phone (02) 8467 3796, or send an email to [training@measurement.gov.au](mailto:training@measurement.gov.au). For more information about the National Measurement Institute, visit our [website](#).